



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/510,221	09/12/2007	Rolf-Dieter Pavlik	2002P03968WOUS	6239

7590 07/29/2008  
Siemens Corporation  
Intellectual Property Department  
170 Wood Avenue South  
Iselin, NJ 08830

EXAMINER
----------

KIM, EDWARD J

ART UNIT	PAPER NUMBER
----------	--------------

2155

MAIL DATE	DELIVERY MODE
-----------	---------------

07/29/2008

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/510,221	<b>Applicant(s)</b> PAVLIK ET AL.	
	<b>Examiner</b> EDWARD J. KIM	<b>Art Unit</b> 2155	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 07/09/2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 11, 14, 16, 20-23 and 31-33 is/are pending in the application.
- 4a) Of the above claim(s) 12, 13, 15, 17-19 and 24-30 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 11, 14, 16, 20-23, and 31-33 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                     | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

### **DETAILED ACTION**

1. This office action is in response to the Amendment filed on 07/09/2008.
2. Claims 11, 14, 16, 20-23, and 31-33 are pending in this office action. Claims 31 has been amended.

### ***Response to Amendment***

3. The Examiner acknowledges the Applicant's argument against the validity of the secondary reference, Rathjen, as prior art, and provides a new secondary reference for disclosing the use of XML.
4. The Examiner withdraws previous objections to the Specification, regarding "first transport layer" and "second transport layer". The Examiner accepts the amendments made to the Specification for examination.

### ***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 11, 14, 16, 20-22, and 31-33 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kuchlin et al. ("HIGHROBOT: Telerobotics in the Internet", Copyright 1997), hereinafter referred to as Kuchlin, in view of "Extensible Markup Language (XML) 1.0" (W3C Recommendation 10 February 1998), hereinafter referred to as XML 1.0.

Kuchlin discloses, a system that comprises of a web server that has full access to the Internet and its Web-technologies as well as industrial automation functionalities.

Regarding claim 11, Kuchlin discloses, a web server for controlling an automation device (Kuchlin, Abstract, section 1, section 2, section 3.2, section 4. Kuchlin discloses a web server for carrying out web server functionalities as well as industrial automation functionalities.), comprising: a processor; a standard operating system that executes on the processor; a real-time operating system that executes on the processor (Kuchlin, Abstract, section 1, section 2, section 3.2, section 4. Kuchlin discloses a web server, for carrying out web server functionalities and industrial automation functionalities, which incorporates real-time operating system.); a first software module that provides a web page and that executes on the processor via the standard operating system (Kuchlin, Abstract, section 1, section 3.2, section 4.1. Kuchlin discloses a system that has full access to the internet and its web technologies, where web browsers are utilized.); third software module providing an automation functionality to control the automation device and having an interface to the real-time operating system (Kuchlin, Abstract, section 1, section 2, section 3.2, section 4. Kuchlin discloses a web server, for carrying out web server functionalities and industrial automation functionalities, which incorporates real-time operating system.); and an application programming interface (Kuchlin, Abstract, section 1, section 2, section 3.2, section 4, section 5. Kuchlin discloses that the software used in the system is designed according to object-oriented paradigm, for example programmed in C++ and JAVA, which utilizes APIs.); and a connection to the Internet for access to at least one of the software modules via the application programming interface (Kuchlin, Abstract, section 1, section 2, section 3.2, section 4, section 5. Kuchlin discloses a system for carrying out web server

functionalities as well as industrial automation functionalities, where the software used in the system is designed according to object-oriented paradigm, which utilizes APIs, for example, programmed in C++ and JAVA.).

Although Kuchlin discloses a system that has full access to the internet and its web technologies, where web browsers are utilized (Kuchlin, Abstract, section 1, section 3.2, section 4.1), Kuchlin fails to *explicitly* disclose the use of XML. XML 1.0 discloses the specification of XML which explains the functionality and interoperability of the web via XML. HTML is a predominant markup language for web pages, which provides means to describe the structure of text-based information. XML 1.0 discloses that the XML has been designed for ease of implementation and for interoperability with HTML (XML 1.0, Abstract, pg.1 second to last paragraph). XML processors are further disclosed in the first paragraph of pg.4. It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teachings of Kuchlin with those of XML 1.0 to include XML parsing and processors. One would have been motivated to do so, as it was known in the art that XML is a standard way of structuring data (syntax), which allows the user to define own proprietary data syntax and further build own proprietary tools with ease, which can be interoperable with predominant markup languages for web pages, such as HTML. Also, since the system disclosed by Kuchlin has full access to internet and web technologies and XML was designed to be interoperable with web page languages such as HTML, it would have been obvious to one of ordinary skill in the art to include XML parsing.

Regarding claim 14, Kuchlin disclosed the limitations as described in claim 11, and further discloses wherein internet protocols are provided for communication in the system

Art Unit: 2155

(Kuchlin et al., Section 3.2, Section 4.1, Section 4.2, Section 4.3. Kuchlin discloses that the system is implemented on a common interface protocol, the Internet protocol.). It would have been obvious at the time the invention was made, to utilize the Internet protocol between the software modules themselves and for communication between the software modules and components outside the web server. One would have been motivated to do so to standardize the communication interface of the system, to minimize conflict caused by utilizing different protocols and to minimize adaptation to other protocols in the system itself.

Regarding claim 16, Kuchlin disclosed the limitations as described in claim 11, and further discloses wherein the web server is adapted to configure and administrate the software modules (Kuchlin, section 4.2.2, section 4.2.4).

Regarding claim 20, Kuchlin disclosed the limitations as described in claim 11, and further discloses wherein the automation device is a computer numerical controlled machine (Kuchlin, Abstract, section 1, section 2, section 3.2, section 4, section 4.2. Kuchlin discloses a web server for carrying out web server functionalities as well as industrial automation functionalities.).

Regarding claim 21, Kuchlin disclosed the limitations as described in claim 11, and further discloses wherein the automation device is a drive (Kuchlin, Abstract, section 1, section 2, section 3.2, section 4, section 4.2. Kuchlin discloses a web server for carrying out web server functionalities as well as industrial automation functionalities.).

Regarding claim 22, Kuchlin disclosed the limitations as described in claim 11, and further discloses wherein the automation device is a valve (Kuchlin, Abstract, section 1, section

Art Unit: 2155

2, section 3.2, section 4, section 4.2. Kuchlin discloses a web server for carrying out web server functionalities as well as industrial automation functionalities.).

Regarding claim 31, Kuchlin discloses, an automation system that controls an automation device via the Internet, comprising (Kuchlin, Abstract, section 1, section 2, section 3.2, section 4. Kuchlin discloses a web server for carrying out web server functionalities as well as industrial automation functionalities.); a first web server, comprising; an application programming interface (Kuchlin, Abstract, section 1, section 2, section 3.2, section 4, section 5. Kuchlin discloses that the software used in the system is designed according to object-oriented paradigm, for example programmed in C++ and JAVA, which utilizes APIs.), a software module for providing an automation functionality to control the automation device via the application programming interface and to directly access a first transport layer, and a first connection to the Internet via the first transport layer, the connection for access to the software module by a client via the application programming interface; a second connection to the Internet via a second transport layer directly accessible by the industrial automation system, wherein the automation device is directly accessible from the Internet via the second transport layer, and wherein the automation device is accessible from the first transport layer via the second transport layer (Kuchlin, section 1, section 3.2, section 4, section 4.1, section 4.2. Kuchlin discloses the use of TCP/IP in the system. It is well-known in the art that the TCP/IP is the best-known example of a Layer 4 Protocol - supported by paragraph [0026] and [0031] of the disclosure by the Applicant. Kuchlin also discloses remote access and control via the internet.).

Regarding claim 32, Kuchlin disclosed the limitations as described in claim 11, and further discloses wherein the industrial automation device is a computer numerical controlled

Art Unit: 2155

machine (Kuchlin, Abstract, section 1, section 2, section 3.2, section 4, section 4.2. Kuchlin discloses a web server for carrying out web server functionalities as well as industrial automation functionalities.).

Regarding claim 33, Kuchlin disclosed the limitations as described in claim 11, and further discloses, wherein the industrial automation device is a drive (Kuchlin, Abstract, section 1, section 2, section 3.2, section 4, section 4.2. Kuchlin discloses a web server for carrying out web server functionalities as well as industrial automation functionalities.).

7. Claim 23 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kuchlin et al. ("HIGHROBOT: Telerobotics in the Internet", Copyright 1997), hereinafter referred to as Kuchlin, in view of "Extensible Markup Language (XML) 1.0" (W3C Recommendation 10 February 1998), hereinafter referred to as XML 1.0., in further view of Modeste et al. (US Pub. #2003/0056012 A1), hereinafter referred to as Modeste.

Regarding claim 23, Kuchlin disclosed the limitations as described in claim 11, however, fails to *explicitly* disclose the use of a firewall for connection to the Internet. The use of a firewall for security purposes is well-known in the art as evidenced by Modeste et al. Modeste et al. discloses a web server comprising a connection to the internet utilizing a firewall (Modeste, fig.4, paragraph [0041]). It would have been obvious to one of ordinary skill in the art at the time the invention was made, to implement a firewall into the teachings of Kuchlin, as shown by Modeste, to prevent unauthorized access to the web server and the industrial automation system.



***Response to Arguments***

8. Applicant's arguments with respect to claim 11 have been considered but are moot in view of the new ground(s) of rejection. A secondary reference is provided for the newly added limitation in claim 11.

9. Although the arguments are moot in view of new ground of rejection, the Examiner notes:

In response to the argument, "Kuchlin does not disclose or suggest use of XML parser, ...merely has gone out and searched the prior art for a reference disclosing use of an XML parser and processor in order to reconstruct the invention in hindsight", the Examiner notes that the reference previously provided was to show that XML was previously used in automation devices and that it was commonly used in web technology. The Examiner agrees with the issue with the priority of the previously presented reference, as the English translation was not available and the US filing completion date does not predate the Applicant's US filing completion date. Therefore, the Examiner presents new reference which discloses the specification of XML, further disclosing the interoperability between XML and HTML. As Kuchlin discloses a system that has full access to the internet and its web technologies, where web browsers are utilized (Kuchlin, Abstract, section 1, section 3.2, section 4.1), and HTML is a predominant markup language used for web pages, which provides means to describe the structure of text-based information, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teachings of Kuchlin to include XML parsers and processors. The secondary reference provided, referred to as XML 1.0, also discloses the use of XML for

Art Unit: 2155

support and processing of applications as well as documents over the Internet (XML 1.0, section 1, 1.1, 2.6). One would have been motivated to do so XML was designed for ease of implementation and for interoperability with both SGML and HTML. XML is a standard way of structuring data (syntax), which allows the user to define own proprietary data syntax and further build own proprietary tools with ease.

### *Conclusion*

**Examiner's Note:** Examiner has cited particular columns and line numbers in the references applied to the claims above for the convenience of the applicant. Although the specified citations are representative of the teachings of the art and are applied to specific limitations within the individual claim, other passages and figures may apply as well. It is respectfully requested from the applicant in preparing responses, to fully consider the references in entirety as potentially teaching all or part of the claimed invention, as well as the context of the passage as taught by the prior art or disclosed by the Examiner.

In the case of amending the claimed invention, Applicant is respectfully requested to indicate the portion(s) of the specification which dictate(s) the structure relied on for proper interpretation and also to verify and ascertain the metes and bounds of the claimed invention.

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO

Art Unit: 2155

MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Edward J. Kim whose telephone number is (571) 270-3228. The examiner can normally be reached on Monday - Friday 7:30am - 5:00pm EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Saleh Najjar can be reached on (571) 272-4006. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Edward J Kim/  
Patent Examiner, Art Unit 2155

Application/Control Number: 10/510,221  
Art Unit: 2155

Page 11

/saleh najjar/

Supervisory Patent Examiner, Art Unit 2155